

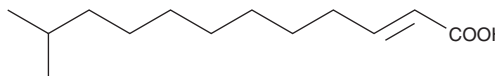
PRODUCT INFORMATION



trans- Δ^2 -11-methyl-Dodecenoic Acid

Item No. 10008321

CAS Registry No.: 677354-24-4
Formal Name: 11-methyl-2E-dodecenoic acid
Synonym: FA 13:1
MF: $C_{13}H_{24}O_2$
FW: 212.3
Purity: $\geq 98\%$
UV/Vis.: λ_{max} : 208 nm
Supplied as: A crystalline solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

trans- Δ^2 -11-methyl-Dodecenoic acid is supplied as a crystalline solid. A stock solution may be made by dissolving the *trans*- Δ^2 -11-methyl-dodecenoic acid in the solvent of choice, which should be purged with an inert gas. *trans*- Δ^2 -11-methyl-Dodecenoic acid is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of *trans*- Δ^2 -11-methyl-dodecenoic acid in these solvents is approximately 30 mg/ml.

trans- Δ^2 -11-methyl-Dodecenoic acid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, *trans*- Δ^2 -11-methyl-dodecenoic acid should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. *trans*- Δ^2 -11-methyl-Dodecenoic acid has a solubility of approximately 0.5 mg/ml in a 1:6 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Both prokaryotes and eukaryotes depend on small signalling molecules for cell-cell communication. *trans*- Δ^2 -11-methyl-Dodecenoic acid is the conformational isomer of *cis*- Δ^2 -11-methyl-dodecenoic acid, a diffusible signal factor (DSF) in extracellular microbial and fungal communication systems.¹ In a DSF bioassay, the minimum concentration of *cis*- Δ^2 -11-methyl-dodecenoic acid required for induction of a DSF biosensor was about 0.5 μM , which is 200-fold lower than that of *trans*- Δ^2 -11-methyl-dodecenoic acid and 20,000-fold lower than that of the corresponding saturated fatty acid (11-methyl-dodecanoic acid).

Reference

1. Wang, L.-H., He, Y., Gao, Y., *et al.* A bacterial cell-cell communication signal with cross-kingdom structural analogues. *Mol. Microbiol.* **51**(3), 903-912 (2004).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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